

BEFORE THE ARIZONA CORPORATION COMMISSION 1 2 MIKE GLEASON Chairman 3 WILLIAM A. MUNDELL Arizona Corporation Commission Commissioner DOCKETED 4 JEFF HATCH-MILLER Commissioner JUL - 3 2008 5 KRISTIN K. MAYES Commissioner DOCKETED BY 6 **GARY PIERCE** Commissioner 7 DOCKET NO. E-04204A-07-0365 IN THE MATTER OF THE APPLICATION 8 OF UNS ELECTRIC, INC. FOR APPROVAL OF ITS EDUCATION AND OUTREACH **DEMAND-SIDE MANAGEMENT** ORDER **PROGRAM** 10 11 Open Meeting 12 July 1 and 2, 2008 Phoenix, Arizona 13 BY THE COMMISSION: 14 FINDINGS OF FACT 15 UNS Electric, Inc. ("UNS Electric") is engaged in providing electric power within 16 portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission. 17 On June 13, 2007, UNS Electric filed an application for approval of its proposed 2. 18 Demand-Side Management ("DSM") Program Portfolio. On November 14, 2007, UNS Electric 19 filed a revised Portfolio Plan, modifying the delivery mechanism and the measurement/evaluation 20 plans, for some programs. 21 The UNS Electric DSM Portfolio consists of seven proposed programs, including 3. 22 the UNS Electric Education and Outreach ("EO") Program summarized below. 23 Program Description 24 Existing Programs. UNS Electric's existing DSM portfolio includes separate 25 residential and commercial programs designed to educate UNS Electric customers on how to 26

conserve energy and lower their energy bills through on-site and on-line energy audits.

27

- 5. <u>Proposed Program</u>. The proposed enhanced EO program would combine, and increase spending for, the existing Residential and Commercial Education programs. It would also eliminate on-site energy audits, increase general efficiency campaigns and include a Time-of-Use ("TOU") Education component designed to educate customers about the benefits of load shifting. The proposed program would also provide \$15,000 in funding for a formal Academic Education component for the UNS Electric program. In addition, the proposed EO program would be used to increase awareness of UNS Electric's other DSM programs.
 - 6. <u>Goals</u>. The EO program includes four distinct education strategies:
- 7. Residential Education. The goal of residential education is to educate UNS Electric's residential consumers on how to conserve energy and lower their electric utility bills utilizing the on-line Energy Advisor and an energy efficiency media campaign.
- 8. Academic Education. The goals of the academic education component are to provide school children with an early understanding and appreciation for energy efficiency, and to encourage students to take the information home.
- 9. The educational strategies include: (i) the Insulation Station, which provides training to 4th grade teachers and a kit containing ready-to-assemble model houses and supplies to conduct science and math activities on insulation and home energy efficiency (4th Grade); (ii) the Energy Patrol, an Arizona Energy Office-sponsored program which involves students who monitor classrooms to ensure that lights, computers and water faucets are turned off when rooms are vacated (K-12th Grades); and (iii) the Energy Advisor, an ongoing effort in the UNS Electric service area which markets the on-line Energy Advisor to teachers for energy efficiency and related science and math activities.
- 10. Commercial Education. The goal of Commercial Education is to educate UNS Electric's small commercial customers on how to conserve energy and lower their electric utility bills through the on-line Energy Advisor and an energy efficiency media campaign.

¹The Company has indicated that it does not anticipate having the infrastructure in place for the Direct Load Control program until the end of 2008.

4

3

67

8

9

-

11

12

13

14

15

16

17

18

19

20

21

22

2324

25

26

27

28

11. Time-Of-Use ("TOU") Education. The goals of TOU education are to teach UNS Electric's residential and commercial customers about the benefits of TOU rates and to communicate strategies that enable customers to maximize savings through load shifting.

- Education component is designed for UNS Electric's residential customers, both homeowners and apartment renters; (ii) the Academic Education component focuses on school children in UNS Electric's service area; (iii) the Commercial Education component would target UNS Electric's small commercial customers; and (iv) the TOU Education component would be directed at UNS Electric's commercial and residential customers.
 - 13. <u>Incentives</u>. Incentives are not paid as a part of the EO program.

14. <u>Delivery Strategy</u>

The EO program would be administered in-house by UNS Electric employees. UNS Electric would provide program administration, marketing, planning, and consumer education activities.

15. Marketing

UNS Electric proposes to market the EO program using the following means:

16. Residential and Commercial:

- Bill messages would be used to provide information to current customers;
- Uesaz.com. would display information to help Web users quickly find energy savings information;
- UNS Electric customer care representatives would be trained to answer customer questions;
- Brochures would be created to be mailed on demand, distributed through the call center and uesaz.com, and distributed at public events such as school training, presentations, and seminars;
- Inserts would be added to customer bills to educate them on ways to lower their electric bill costs;
- Email newsletter articles featuring energy savings tips would be sent to all registered uesaz.com users;

 Metro traffic and other radio advertising would be used to further communicate the value of the programs;

- Media relations would be prepared to answer questions posed by the media; and
- Personal outreach would be done at events such as fairs, exhibits and science competitions, to distribute information about energy conservation and renewable energy.

17. Academic Education:

UNS Electric would contact elementary and high school teachers by mail and/or telephone to schedule appearances. In addition, direct mail to all elementary schools would outline the programs offered and provide opportunities for teachers to order classroom sets of grade-appropriate energy conservation booklets and study guides.

18. <u>Time-Of-Use Education</u>:

UNS Electric would notify current customers about TOU rates as they become available and provide ongoing information to both new and current UNS Electric customers interested in signing up for TOU through avenues such as: (i) targeted mailings; (ii) bill messages; (iii) UNS Electric.com; (iv) UNS Electric customer care representatives; (v) brochures; (vi) inserts; (vii) email newsletter; (viii) metro traffic and other radio, print, and Internet; (ix) media relations; and (x) door tags.

19. It is Staff's position that ratepayer DSM dollars should not be used simply to market a specific rate. Staff has recommended that any customer communications regarding TOU should be designed to educate customers regarding the benefits of shifting peak load to off-peak hours, and of reducing peak demand (kW). Such marketing and educational communications should include information on what customers can do to manage their own energy consumption to shift peak load or reduce peak demand.

20. Participation in Existing Education and Outreach Programs

Staff has concerns regarding participation rates for the Commercial on-line energy audit, as reported in the UNS Electric Semi-Annual DSM filing for the period ending December 31, 2007. The Company reports a total of 329 commercial customers accessing its on-line Energy Advisor,

² During 2007 1,331 residential customers accessed the Residential on-line Energy Advisor, with 365 customers completing the on-line audit. Staff believes that, while these participation numbers should be improved, the Commercial on-line Energy Advisor has shown an unsatisfactory level of participation.

with only one customer completing the on-line energy audit during 2007.² Without significantly improved participation, Staff believes that expenditures on this program component can not be justified.

- 21. In response to inquiries from Staff, the Company stated that it has not determined the specific reason or reasons for low participation, but indicates that lack of awareness of the Energy Advisor, the time required to complete the survey, and a customer's lack of technical knowledge regarding a facility may all be contributing factors. UNS Electric plans to increase awareness through bill messages, bill inserts, radio advertising, and participation at public events. In addition to increased advertising, the Company is investigating the possibility of using other software vendors in the future.
- 22. If the EO program is approved, Staff has recommended that the Company perform research and analysis in order to determine the reason or reasons for low participation. Any software issues should be addressed within one year following approval, whether this would require new software or revisions of existing software. (For example, if the length of the survey is a disincentive to using the on-line energy audit, shorter individual audits on topics such as Lighting, Heating and Cooling, and Commercial Cooking could be developed.) Participation should also be tracked to determine whether the proposed increase in marketing brings about higher participation.
- 23. If the EO program is approved, Staff has recommended that the on-line audit component be approved only on an interim basis, and that the Company request approval to continue it after one year. This filing should take place one year following implementation of an updated energy audit program, if the Company significantly revises the program, or one year following approval, if the Company chooses to keep the existing program in place, and rely on more extensive marketing to improve participation rates.

2

3

5

7

9

10

11

1213

14 15

16 17

18

19

2021

22

23

25

26

27

- T

28

24. Monitoring and Evaluation

In response to a Staff request, UNS Electric developed a Measurement and Evaluation Plan for the Education and Outreach program. The Company is proposing to take the following steps for evaluating the different components of the EO program:

25. Residential and Commercial Energy Efficiency Campaign

During monitoring and verification activities for incentive-based DSM programs, UNS Electric would ask participants whether they were made aware of the program, or influenced to participate, by the energy efficiency campaign;

- 26. Check boxes would be added to incentive applications to allow customers to indicate how they learned about the program in which they are participating; and
- 27. UNS Electric customers would be surveyed in order to determine what actions they have taken to improve their energy efficiency.

28. Residential and Commercial On-Line Audit Programs

Statistics would be collected regarding visitors to the on-line audit site, including how far each customer proceeds with the audit and final recommendations page; and

29. Customers participating in the on-line audit would be contacted after three to six months to determine whether the audit was helpful and what actions the customer took to improve energy efficiency as a result.

30. Academic Education

Parents would be surveyed to determine whether their child's participation resulted in discussions about energy use, and about whether they were influenced to take or plan any actions to improve energy efficiency as a result of the EO program, or due to a UNS Electric incentive-based program; and

31. UNS Electric would collect statistics concerning school, teacher and student participation and gather comments to improve program delivery.

32. Residential and Commercial TOU Education

Customers would be surveyed to determine whether TOU education influenced them to change their behavior or adopt new technologies.

33. Program Budget

The proposed budget for the EO program is set out in the tables below. The overall budget for the EO program is based on the Company's estimate of the costs associated with putting together an effective year-round campaign and takes into account the historic cost of media buys. The Company has revised its proposed budget allocations to reflect a general TOU educational campaign without mandatory TOU.³

UNS Electric Education and Outreach Program Budget ⁴	
Residential and Commercial Education *	\$54,000
Residential and Commercial Education On-Line Audit (Software License)	\$11,000
Academic Education	\$15,000
Time-Of-Use Education	\$25,000
Evaluation	\$15,000
Total Residential & Commercial	\$120,000 ⁵

^{*\$27,000} is allocated to advertise the on-line audit to residential and small commercial customers.

	2008	2009-2012*
Total Administrative and O&M Cost Allocation ⁶	\$15,000	\$10,000
Total Marketing Allocation ⁷	\$50,000	\$55,000
Total Direct Implementation ⁸	\$40,000	\$40,000
Total EM&V Cost Allocation ⁹	\$15,000	\$15,000
Total Program Budget	\$120,000	\$120,000

^{**}The Company proposes to increase the program budget by 3% in ensuing years, to compensate for inflation.

34. Staff has recommended that UNS Electric be allowed to shift money between program components in order to address changes in participation.

³ UNS Electric has revised the TOU allocation downward, from \$90,000 to \$25,000 for the first year, and from \$50,000 to \$25,000 for the second and ensuing years.

⁴ Summit Blue, consultant for TEP and UNS Electric, indicates that the proposed budget allocations for the TEP and UNS Electric DSM programs were based on a survey of budgets for 17 DSM programs, for different utilities, that began operation in California in 2005. Changes were made to reflect changes in the TOU program component.

⁵The UNS Electric semi-annual report listed a total of \$89,500 in spending during 2007 for the separate Commercial Education (\$8,609) and Residential Education (\$80,891) programs.

⁶ Includes labor for individuals working on program design, research, data collection, document preparation, copying, reporting and supervision.

See Marketing section.
 Includes labor for individuals working on actual design and development of EO materials, training programs, and hardware and materials necessary to produce materials.
 See Monitoring and Evaluation section.

Page 8

35. Cost-Benefit Analysis and Projected kWh and Environmental Savings

The EO program consists of education and marketing intended to inform UNS Electric customers about the benefits of energy conservation and to inform those customers on how to achieve energy savings. Because the aim of this program is to change behavior, it is difficult to objectively assess cost-effectiveness or measure actual energy or environmental savings. Staff's position is that while standard cost-effectiveness analysis may not be appropriate for market transformation or educational programs, such programs must still be evaluated to determine their effectiveness. As discussed in the Monitoring and Evaluation section, UNS Electric has proposed to put into place evaluation measures, including surveys and the collection of participation statistic, in order to verify the program's effects. Staff has recommended that the results from the Company's Monitoring and Evaluation process should be reported in the Company's semi-annual DSM reports.

36. <u>Improving Customer Access to Cost Information</u>

The three major opportunities for energy conservation involve improving equipment, enhancing the thermal envelope (with respect to buildings), and changing behavior. The OE program is intended to increase participation in the Company's other DSM programs, but is also intended to effect a broader market transformation, one that includes changes in customer behavior. To promote that end, Staff has recommended that the Company work to improve its customers' access to more specific information regarding the costs of energy for particular end uses. A list of estimated monthly energy costs, by appliance, for UNS Electric customers should be available on the UNS Electric/Gas website (in addition to any cost calculator) and should be included in other program marketing, including bill stuffers.¹⁰

¹⁰ As an example, the SRP site includes a chart, based on usage of 1,285 kWh per month, which estimates an energy cost of \$19.84 for a 10-15 year old refrigerator, located outside, during summer months, while an in-house Energy Star refrigerator is estimated to cost \$4.76 to run during the same period.

4

5 6

8

7

10

9

11 12

13

14

15

16

17 18

19

20 21

22

23

24 25

26

27

28

37. Staff has also recommended that information should be made available on the website, and through other marketing, regarding how customers can reduce "phantom loads" 11, or power consumed by electronic appliances that are switched off or in standby mode.

38. Reporting Requirement

If approved, the EO program should be reported in the Company's semi-annual DSM reports. At a minimum, reporting should include the following information: (i) participation levels for each component of the EO program; (ii) the amount spent in each major budget category during the previous reporting period and, in the end-of-year report, the amount spent in each major budget category during the course of the calendar year; (iii) the results of the monitoring and evaluation process for each program component; (iv) any issues that concern the Company regarding the program, along with plans to address any problems; and (v) any major changes planned regarding the program, including termination of the program itself or a component of the program.

39. Summary of Staff Recommendations

Staff has recommended that the Company perform research and analysis in order to determine the reason or reasons for low participation with respect to its commercial on-line Energy Advisor.

- Staff has recommended that any customer communications regarding TOU should 40. be designed to educate customers regarding the benefits of shifting peak load to off-peak hours and of reducing peak demand (kW). Such marketing and educational communications should include information on what customers can do to manage their own energy consumption to shift peak load or reduce peak demand.
- If the EO program is approved, Staff has recommended that the on-line audit 41. component be approved only on an interim basis and that the Company request approval to continue one year following implementation of an updated energy audit program, if the Company significantly revises the program, or one year following approval, if the Company chooses to keep the existing program in place.

¹¹ Also referred to as "parasitic" or "vampire" loads, these loads waste energy and can amount to approximately 5% of a home's energy load.

42.

3

5

8

10

11

121314

1718

15

16

19 20

21

22

2324

26

25

2728

43. Staff has recommended that the Company work to improve its customers' access to more specific information regarding the costs of energy for particular end uses, including a list of estimated monthly energy costs, by appliance, both on the UES website and as bill stuffers.

program components in order to address changes in participation.

44. Staff has also recommended that information should be made available on the website, and through other marketing and education, regarding how customers can reduce "phantom loads", or power consumed by electronic appliances that are switched off or in standby mode.

Staff has recommended that UNS Electric be allowed to shift money between

- 45. If approved, Staff has recommended that the EO program be reported in the Company's semi-annual DSM reports. At a minimum, reporting should include the following information: (i) participation levels for each component of the EO program; (ii) the amount spent in each major budget category during the previous reporting period and, in the end-of-year report, the amount spent in each major budget category during the course of the calendar year; (iii) the results of the monitoring and evaluation process for each program component; (iv) any issues that concern the Company regarding the program, along with plans to address any problems; and (v) any major changes planned regarding the program, including termination of the program itself or a component of the program.
- 46. Staff has recommended that the UNS Electric EO program be approved, with the modifications included herein.

CONCLUSIONS OF LAW

- 1. UNS Electric is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona Constitution.
- 2. The Commission has jurisdiction over UNS Electric and over the subject matter of the application.
- 3. The Commission, having reviewed the application and Staff's Memorandum dated June 17, 2008, concludes that it is in the public interest to approve the Education and Outreach program.

2

4

5

7

9

1011

12

13

1415

16

17

18 19

20

22

21

23

2425

26

2728

<u>ORDER</u>

IT IS THEREFORE ORDERED that the UNS Electric, Inc. Education and Outreach program be and hereby is approved, with the modifications listed below.

IT IS FURTHER ORDERED that UNS Electric, Inc. perform research and analysis in order to determine the reason or reasons for low participation with respect to its commercial online Energy Advisor.

IT IS FURTHER ORDERED that any customer communications regarding TOU should be designed to educate customers regarding the benefits of shifting peak load to off-peak hours and of reducing peak demand (kW). Such marketing and educational communications should include information on what customers can do to manage their own energy consumption to shift peak load or reduce peak demand.

IT IS FURTHER ORDERED that the on-line audit component be approved only on an interim basis, and that UNS Electric, Inc. request approval to continue one year following implementation of an updated energy audit program, if the Company significantly revises the program, or one year following approval, if the Company chooses to keep the existing program in place.

IT IS FURTHER ORDERED that UNS Electric, Inc. be allowed to shift money between program components in order to address changes in participation.

IT IS FURTHER ORDERED that UNS Electric, Inc. work to improve its customers' access to more specific information regarding the costs of energy for particular end uses, including a list of estimated monthly energy costs, by appliance, on the UES website and as bill stuffers.

IT IS FURTHER ORDERED that information should be made available both on the website and through other marketing and education, regarding how customers can reduce "phantom loads", or power consumed by electronic appliances that are switched off or in standby mode.

IT IS FURTHER ORDERED that the EO program be reported in the Company's semiannual DSM reports. At a minimum, reporting should include the following information: (i) participation levels for each component of the EO program; (ii) the amount spent in each major

budget category during the previous reporting period and, in the end-of-year report, the amount spent in each major budget category during the course of the calendar year; (iii) the results of the 2 monitoring and evaluation process for each program component; (iv) any issues that concern the 3 Company regarding the program, along with plans to address any problems; and (v) any major 4 changes planned regarding the program, including termination of the program itself or a 5 component of the program. 6 IT IS FURTHER ORDERED that this Decision shall become effective immediately. 7 BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

8 9 10 COMMISSIONER 11 12 13 COMMISSIONER COMMISSIONER 15 IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have 16 hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of 17 Phoenix, this 3rd day of 18 19 20 EXECUTIVE DIRECTOR 21 22

DISSENT:

DISSENT:

26 EGJ:JMK:lhm\KOT

27

23

24

25

1	SERVICE LIST FOR: UNS Electric, Inc.
2	DOCKET NO. E-04204A-07-0365
3	Ms. Michelle Livengood, Esq.
4	Unisource Energy Services
5	One South Church, Suite 200 Tucson, Arizona 85701
6	Mr. Scott S. Wakefield
7	Chief Counsel Residential Utility Consumer Office
8	1110 West Washington Street, Suite 220
9	Phoenix, Arizona 85007
10	Mr. Ernest G. Johnson Director, Utilities Division
11	Arizona Corporation Commission
12	1200 West Washington Street Phoenix, Arizona 85007
13	Ms. Janice M. Alward
14	Chief Counsel, Legal Division
14	Arizona Corporation Commission
15	Arizona Corporation Commission 1200 West Washington Street Phoenix Arizona 85007
15	1200 West Washington Street
15 16 17	1200 West Washington Street
15 16 17 18	1200 West Washington Street
15 16 17 18	1200 West Washington Street
15 16 17 18 19 20	1200 West Washington Street
15 16 17 18 19 20 21	1200 West Washington Street
115 116 117 118 119 20 21 22	1200 West Washington Street
15 16 17 18 19 20 21 22 23	1200 West Washington Street
15 16 17 18 19 20 21 22 23 24	1200 West Washington Street
15 16 17 18 19 20 21 22 23 24 25	1200 West Washington Street
15 16 17 18 19 20 21 22 23 24	1200 West Washington Street